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CIAIMS

1 . A maintenance/recovery device for a liquid discharge device, comprising:

5 a cap member covering a surface of a nozzle of a liquid discharging head, the liquid discharging head discharging a droplet of a recording liquid from the nozzle;

 a resilient contact member provided in the cap member to come in contact with the surface of the nozzle;

10 a recess-forming member providing in the cap member to form a recess for receiving the recording liquid attracted from the nozzle,

 wherein the contact member and the recess-forming member are integrally formed by molding, the recess-forming member is made of a resin material containing a water repellent agent, and the recess-forming member is provided to have at least two slopes being inclined toward an outlet at a bottom of the recess.

20 2 . The maintenance/recovery device according to claim 1 wherein a content of the water repellent agent in the resin material which forms the recess-forming member does not exceed 10 weight percent.

25 3 . The maintenance/recovery device according to

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claim 1 wherein the recess of the recess-forming member is provided with corners which are curved.

4 . The maintenance /recovery device according to
5 claim 1 wherein a sum of an inclination angle of the slopes of the recess-forming member to a horizontal surface and a contact angle between the slopes and the recording liquid is 70 degrees or more.

10 5 . The maintenance/recovery device according to
claim 4 wherein the sum of the inclination angle and the contact angle is 90 degrees or more.

6 . An image forming device comprising:
15 a liquid discharge head provided as a recording head which discharges a droplet of a recording liquid from a nozzle; and
a maintenance/recovery device provided to maintain and recover performance of the liquid discharge head,
20 the maintenance /recovery device comprising:
a cap member covering a surface of the nozzle of the liquid discharging head;
a resilient contact member provided in the cap member to come in contact with the surface of the nozzle;
25 a recess-forming member providing in the cap member

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to form a recess for receiving the recording liquid attracted from the nozzle,

wherein the contact member and the recess-forming member are integrally formed by molding, the recess-forming
5 member is made of a resin material containing a water repellent agent, and the recess-forming member is provided to have at least two slopes being inclined toward an outlet at a bottom of the recess.

10 7. The image forming device according to claim 6 wherein the recording liquid contains a water, a pigment of 6 weight percent or more, a polymer component, and a water-soluble organic solvent, and the recording liquid has a surface tension of 40 mN/m or less at 25 degrees C and has a
15 viscosity that is above 5 cp and below 20 cp at 25 degrees C.

8. The image forming device according to claim 6 wherein a content of the water repellent agent in the resin material which forms the recess-forming member does not exceed
20 10 weight percent.

9. The image forming device according to claim 6 wherein the recess of the recess-forming member is provided with corners which are curved.

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10. The image forming device according to claim 6
wherein a sum of an inclination angle of the slopes of the
recess-forming member to a horizontal surface and a contact
angle between the slopes and the recording liquid is 70
5 degrees or more.

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